

1 OFFICE OF THE ILLINOIS STATE FIRE MARSHALL
2 ELEVATOR SAFTY REVIEW BOARD MEETING
3 MARCH 3, 2016 at 8:30 A.M
4 TRANSCRIPT OF PROCEEDINGS had in the
5 above-entitled cause on the 3rd day of March,
6 A.D., 2016, at 8:30 a.m.

7

8 APPEARANCES: MR. JOSEPH BLOCK, Chairman
9 MR. BOB CAPUANI, Director Elevator
10 Safety
11 MR. MATTHEW TAKSIN, Counsel for the
12 Board
13 MR. DICK GREGORY, Consultant to the
14 Board
15 MR. WILLIAM BOGDON, Board Member
16 MR. KEVIN GAHR, Board Member
17 MR. THOMAS GANIERE, Board Member
18 MR. CRAIG GRANT, Board Member
19 MR. MATTHEW HUNT, Board Member
20 MR. TOM JIRIK, Board Member
21 MR. CRAIG JOHNSON, Board Member
22 MR. TERRY SHANKLIN, Board Member
23 MR. KELLY WELLER, Board Member

24

1 CHAIRMAN BLOCK: We will call the meeting
2 to order. We will stand for the pledge of
3 allegiance.

4 (WHEREUPON, the audience said the
5 Pledge of Allegiance to the Flag of
6 the United States of America.)

7 CHAIRMAN BLOCK: Since we have quite a few
8 new members on the Board, we will take a minute to
9 do introductions.

10 As myself I am Joe Block. I am the
11 new Chairman of the Board. The persons can go
12 around the table. We will start with Terry.

13 MR. SHANKLIN: Terry Shanklin.

14 MR. GRANT: Craig Grant

15 MR. JIRIK: Tom Jirik.

16 MR. BOGDON: William Bogdon.

17 MR. WELLER: Kelly Weller

18 MR. JOHNSON: Craig Johnson

19 MR. GANIERE: Thomas Ganiere.

20 MR. GAHR: Kevin Gahr.

21 MR. HUNT: Matthew Hunt.

22 MR. TASKIN: Matthew Taksin

23 MR. SHANKLIN: Terry Shunklin.

24 MR. GREGORY: Dick Gregory, a consultant to

1 the Board.

2 MR. CAPUANI: Bob Capuani.

3 CHAIRMAN BLOCK: Thank you. We can move
4 forward.

5 Has everyone had the opportunity to
6 review the minutes?

7 Do we have a motion?

8 MR. SHANKLIN: I make a motion to accept.

9 CHAIRMAN BLOCK: Is there a second?

10 MR. HUNT: Second.

11 CHAIRMAN BLOCK: All in favor say aye.

12 [The ayes were heard.]

13 CHAIRMAN BLOCK: Any opposed?

14 [No response.]

15 CHAIRMAN BLOCK: The ayes have it.

16 The court reporter would like the
17 person making the motion to state their name.

18 MR. SHANKLIN: Terry Shanklin.

19 MR. HUNT: Matt Hunt, second.

20 CHAIRMAN BLOCK: The minutes are approved.

21 So we will move forward to old business.

22 Bob will have the floor.

23 MR. CAPUANI: Panel members, members of the
24 public, as of today, May 3, 486,000 permits to

1 date this year of 1/6 85 licenses, 115
2 registrations, 1,767 certificates.

3 Another item I am going to add to my
4 list is fatalities.

5 Right now we have two fatalities, not
6 in Illinois, thank God. One was up in Quebec,
7 Canada.

8 MR. SHANKLIN: Yes.

9 MR. CAPUANI: And one was in Arkansas.
10 The person in Arkansas was a 28-year-old mechanic,
11 just married. His wife was 13 weeks pregnant. He
12 was crushed under an elevator.

13 So I urge the inspection companies
14 out here to make sure that your inspectors and
15 remind them about accidents and egress out of the
16 pits and hard tops. This is what happened. He
17 was in the pit. We don't know exactly what
18 happened, but he was crushed by the car.

19 CHAIRMAN BLOCK: Any comments?

20 MR. GREGORY: As part of the work that I do
21 as a consultant and expert witness, I have one
22 dead mechanic in Dallas, one dead mechanic in
23 Chicago and one in Indiana going on right now. So
24 safety is crucial.

1 CHAIRMAN BLOCK: That's Old business.

2 Let's move on to new business. We will move on to
3 new business. We have a presentation of wind
4 turbine elevators.

5 Can you state your name and come down
6 here.

7 MR. KOSHAK: My name is John Koshak,
8 K-o-s-h-a-k.

9 CHAIRMAN BLOCK: Thank you.

10 MR. KOSHAK: I have given the Board a Power
11 Point Presentation.

12 Do you want me to put it on the
13 screen?

14 CHAIRMAN BLOCK: Bob, what do you want to
15 do?

16 MR. CAPUANI: It's up to you.

17 CHAIRMAN BLOCK: Can you get it hooked up?

18 MR. KOSHAK: Where is the plug?

19 CHAIRMAN BLOCK: Let's go off the record
20 while we get that set up.

21 (WHEREUPON, there followed a
22 discussion outside the record.)

23 CHAIRMAN BLOCK: Back on the record.

24 MR. CAPUANI: Let's go back on the record.

1 While we are getting the Power Point
2 presentation set up, we are going to hear from
3 Dave Smith. Dave is from Temples. Dave is an
4 inspector and a mechanic from Wind Turbines, and
5 he is going to give us a little talk on how he
6 does his inspection and what is required of him.

7 So, Dave, if you would come up here
8 and introduce yourself.

9 MR. SMITH: My name is Dave Smith with
10 Temples Group. I have just a couple of things
11 before I talk about the actual inspection of the
12 units.

13 I have heard some discussion
14 regarding the legal matters that the State of
15 Illinois might run into, switching these wind
16 turbine elevators from special use elevators to
17 wind turbine elevators to be inspected.

18 I would just like to remind the Board
19 that in 1997 we had elevators that weren't being
20 inspected by the State of Illinois, and things
21 changed. I am sure that people thought the world
22 was going come to an end, and the world is still
23 going on.

24 I would urge the Board to look at

1 this from a safety standpoint, strictly a safety
2 standpoint and not how the lawyers will effect it,
3 because I can assure you that the lawyers are
4 going to make money either way. It's just what
5 they do. Let's think about this by how safe it's
6 going make a product, whether they are going to
7 get it inspected annually. I think that is an
8 important item to think about.

9 From the inspection standpoint when
10 you go out to a wind turbine, it's very different
11 than a commercial elevator. It's also very
12 different from most industrial inspections.

13 The biggest things that are different
14 is probably the environment, because as you go out
15 to a wind turbine elevator, there are safety
16 considerations with the environment such as fog,
17 ice, wind, lightning and all these things effect
18 how many units you get done in a day, whether you
19 get any units done in a day, how many breaks have
20 to be taken during the day. For example,
21 lightning, they have monitors set up at 60 miles
22 out; and if there a lightning strike 60 miles out,
23 you have to start with leaving the tower.

24 At 30 miles out you can be out of the

1 tower and back at the O & M office, and you don't
2 to get to go back to the tower until it has been
3 all clear for 30 minutes.

4 I have been in situations where you
5 get the all clear, you are back to the tower. We
6 have all your stuff back up in the tower and
7 lightning springs 60 miles away again. And you do
8 it all over again.

9 Because of that, the inspections
10 are -- they have a little bit of influx. It's not
11 like you walk into a machine room, you start the
12 machine room, you go to the pit, you go to the
13 hoist way and nobody gets in your road. Nobody
14 stops you. There are those concerns.

15 The secondary of concern is
16 qualifications. Because these turbines are
17 generally located in remote locations and you need
18 to go into them with a team and that team needs to
19 be able to rescue each other.

20 As an inspector, you really need to
21 be Climb-A-Rescue certified. So you can rescue
22 the person you are with, and that person is
23 usually from the company that you are inspecting
24 with, and they need to be certified to rescue you

1 from those turbines.

2 I just left Kansas. In Kansas that
3 was the closest point to a hospital of anywhere I
4 had worked in eight months.

5 The closest place, the closest EMT
6 and hospital was a half hour away. If you have a
7 medical emergency at height in the tower, and you
8 are hanging from your harness, if somebody isn't
9 starting rescue immediately, you are going to be
10 hanging for a half hour before the paramedics get
11 there, and the most likelihood the paramedics
12 haven't done this too often. They are not
13 particularly skilled at it. It's going to take
14 them time to get you down.

15 If it's a heart attack or something
16 like that, that is too long. So, as an inspector,
17 you really have the responsibility of being able
18 to rescue the person you are with, and he has a
19 responsibility of being able to get you out of the
20 tower. If he can get you out of the tower and on
21 the ground when the paramedics arrive, then they
22 can start their work and start the transportation.
23 So that would be the second item that I think is
24 important for the people to know.

1 I think the third one is the
2 equipment really isn't that complicated. The
3 equipment is -- if you have time in the trade and
4 you have worked in the field and you have worked
5 on the equipment for 15 years, this stuff is not
6 going to be that difficult.

7 If you have experience with code
8 books and understanding what they are asking for
9 in the code book, I am sure you can apply the
10 first two that I talked about weather conditions
11 and if additional skills that you need to acquire
12 to be able to go into a tower safely or properly.
13 Those are the points that you need to think about
14 when you are getting ready to inspect wind turbine
15 elevators.

16 MR. CAPUANI: Thank you.

17 CHAIRMAN BLOCK: Thank you, Dave.

18 MR. SHANKLIN: I have a question.

19 MR. SMITH: Yes, sir.

20 MR. SHANKLIN: As far as the usage, how
21 often do these elevators shut down? What type of
22 usage do you normally see?

23 MR. SHANKLIN: Of the units that I have
24 inspected that have five-plus years, very few of

1 them have been at a plus 200 hours. There are
2 very few of them that have been plus 200 hours.
3 Under five years you are looking somewhere in the
4 neighborhood of 100 hours tops.

5 That being said it has been my
6 experience with the equipment that I am inspecting
7 that hours of use isn't as important as years in
8 service.

9 There are components that are made up
10 of rubber and things like that that really don't
11 care the number of hours. They are sitting there
12 with pressure on them. There is flat spots. They
13 can deteriorate from temperature and cold. Keep
14 in mind that these units under normal operation
15 are minus 33 with I think 125 degrees. So, that
16 rubber and material sees a pretty big temperature
17 swing. It's a lot greater than your average
18 commercial elevator. Even if it had an outside
19 machine room, the equipment is going to heat it
20 up. It's going to keep it a little more.

21 MR. SHANKLIN: So, the turbine has to have
22 a maintenance program for each turbine, I am
23 assuming?

24 MR. SMITH: Yes. The manufactures that I

1 have seen have a maintenance schedule.

2 MR. SHANKLIN: Would you know how often
3 they maintained that piece of equipment on a
4 monthly basis?

5 MR. SMITH: The equipment I have seen the
6 equipment, the manuals call for annual
7 inspections.

8 Tractell, which is the biggest
9 manufacturers of components for these things is a
10 little bit -- they are on the fence. I see six
11 month inspection schedules. Then I see annual
12 inspection schedules. They are in the process
13 right now of clarifying that and coming out with a
14 wind turbine elevator manual which they don't have
15 yet.

16 MR. SHANKLIN: So, in other words it's a
17 biannual maintenance inspection by the
18 manufacture's technicians, would you say that?

19 MR. SMITH: Certified by the manufacturer,
20 yes. But I think it's more reasonable and I
21 believe that Tractel will probably come out with
22 an annual inspection.

23 In my opinion that would be more than
24 adequate. If you look at them five times in five

1 years, you are not going to have the problems and
2 the failures that I have seen when it hasn't been
3 looked at at that rate.

4 MR. SHANKLIN: Thank you.

5 CHAIRMAN BLOCK: Dave, one question, do you
6 know, are they specifying just inspections, or are
7 there maintenance requirements and components as
8 well?

9 MR. SMITH: There are maintenance
10 requirements in that, yes.

11 CHAIRMAN BLOCK: Component replacement
12 requirements?

13 MR. SMITH: Component checks; and if they
14 don't meet specs, then there would be replacement;
15 but if they meet specs, then there is not
16 necessarily a requirement to change things.

17 That being said at the five-year mark
18 in my estimation you would be foolish to spend the
19 time removing the components, disassembling them
20 and inspecting them and not replacing some items
21 in there that wear, especially neoprene or rubber
22 items that are in some of the locks. That is just
23 purely a financial decision, because you do all
24 the work of looking at it and then you are not

1 going to get it until maybe a year or two out and
2 have to replace it when you replaced it right
3 then. You would be pretty good for five years.

4 CHAIRMAN BLOCK: Okay.

5 MR. SMITH: But there is a lot of opinions
6 in that matter, so it's just mine.

7 CHAIRMAN BLOCK: Thank you. Any other
8 questions.

9 MR. WELLER: Well, I know you talked about
10 this in the course of our meetings overtime.

11 These were considered service
12 elevators?

13 MR. CAPUANI: These were considered special
14 purpose elevators.

15 MR. WELLER: So, jurisdictionally what are
16 we looking at? Are we looking at inspection under
17 the code or are we looking at placement mechanics
18 under the code, or are we looking at installation
19 under the code?

20 Which one of these pertains to this
21 order?

22 MR. CAPUANI: This is the question that I
23 think our legal is going to review. Up to 2013
24 there were special purpose personnel. As you

1 know, they are exempt from our act.

2 MR. WELLER: And there is no way a public
3 person could wander into one of those?

4 MR. CAPUANI: Absolutely not. They are
5 padlocked.

6 MR. WELLER: I was curious.

7 MR. CAPUANI: It was taken out of that
8 inspection and put into 5.11 of the codebook,
9 which would be under our jurisdiction after we
10 adopt the Code 13 code.

11 MR. WELLER: Before 2013 it was a special
12 purpose.

13 Now because they have changed the
14 code, now are we being asked to oversee the
15 installation of the inspection or the repair and
16 maintenance? Which one are we applying?

17 MR. CAPUANI: All of the above.

18 MR. WELLER: So now they are being asked to
19 consider public use under the same requirement?

20 MR. CAPUANI: I don't believe the public
21 can go into these installations.

22 MR. WELLER: But you have to be qualified?

23 MR. CAPUANI: This is a question for our
24 general counsel, and our attorneys are going to

1 try to review it and see what happened with that
2 special inspection personnel. I.

3 Have reached out to our states, and
4 what the other states do is they figure that if
5 it's an SP elevator and you install SP, it's an
6 SP. They are still exempt such as grain
7 elevators. Grain elevators are still considered
8 special personnel, so they are still exempt under
9 our act.

10 MR. WELLER: This is something unique?

11 MR. CAPUANI: Yes.

12 MR. GREGORY: What we did on the elevator
13 Standards Committee is we put a new section in the
14 guide -- that is John Koshak here -- who
15 ram-rodged a new section in the code and took wind
16 turbine elevators and made a section of wind
17 turbine elevators; and from an A-17 point of view,
18 it is considered an elevator.

19 So that means that in the
20 jurisdictions that enforce the code, unless they
21 make an exemption for wind turbine elevators, it
22 would have to be a specific exemption in their
23 law, and unless they make that exemption, you
24 would have to permit them to put them, register

1 them, have them have maintenance and have
2 inspections.

3 MR. SHANKLIN: All under our jurisdiction?

4 MR. CAPUANI: Yes, because we are now since
5 February 19th of last year, we are under a 71-2013
6 where these wind turbine elevators are in the
7 code.

8 MR. WELLER: Just so I understand, so these
9 things come off of the semitruck, and they pick
10 them up and erect them?

11 MR. GREGORY: I have never been in one.
12 John has asked me that.

13 MR. WELLER: So, it's assembled after it's
14 put up?

15 MR. KOSHAK: It's a box of parts.

16 MR. WELLER: Okay. I'm sorry. I am very
17 new at this. I am learning.

18 MR. JOHNSON: All elevators in the state
19 are not inspected now?

20 MR. GREGORY: The special purpose personnel
21 elevators and residential elevators are not
22 covered in the State of Illinois.

23 MR. JOHNSON: And they are not covered
24 under the general public's knowledge in the same

1 way?

2 MR. CAPUANI: They are exempt.

3 MR. GREGORY: It's a political decision
4 made by the legislature. They are in the elevator
5 code. They are required to meet the elevator
6 code, but not in the State of Illinois.

7 It just takes a part of jurisdictions
8 in the City of Chicago, which is a different state
9 you realize.

10 Residential elevators have to be
11 permitted and inspected when they are installed,
12 but then if the owner of the residence says oh, I
13 don't want to do this inspection, if the inspector
14 shows up and they don't let you in, they never
15 come back.

16 MR. JOHNSON: So, installation of elevators
17 of all times are permanent.

18 MR. GREGORY: In Chicago, but not Illinois.

19 MR. CAPUANI: Not in Illinois.

20 MR. JOHNSON: So, in my community if
21 someone wants to put in an elevator in a house,
22 then they don't --

23 MR. GREGORY: You can make in your
24 community whatever it may be. You can make a

1 stronger code than the State.

2 MS. VAUGHN: Residential elevators are
3 covered at the local level, so they are permitted
4 and they get a permit inspection.

5 But I think what he is saying is that
6 when it is the permit portion or phase is
7 completed and it's turned over to the resident,
8 then regular inspections do not occur.

9 Annual inspections are strictly for
10 the commercial aspect for public use in buildings
11 such as a hospital.

12 MR. GREGORY: That is on a community by
13 community basis as far as what they do.

14 MR. JOHNSON: But aren't jurisdictional
15 authority as of right now you follow the state
16 code and still so special purposes do not get
17 inspected?

18 MR. GREGORY: Or permitted or anything,
19 right.

20 MR. JOHNSON: And the other one is --

21 MR. GREGORY: Residential.

22 MR. JOHNSON: But all commercial and all
23 public and stuff are required a permanent
24 inspection each year?

1 MR. GREGORY: Right. You can do in your
2 community what you want to exceed as far as that
3 goes.

4 MR. JOHNSON: I am saying as far as our
5 authority, we are talking here right now we have
6 to follow the State statute; am I correct?

7 MR. SHANKLIN: Correct.

8 MR. CAPUANI: There are special use
9 permits. What happened is that the lobbyists got
10 together and the agricultural, and they took it
11 out of the act because of the cost.

12 What happened to this individual that
13 owned the company that pushed us is now coming to
14 us saying that he would like it back into the act
15 because what happened was he didn't want to pay
16 his licensed mechanics. He didn't want to pay the
17 inspection fees. He didn't want to pay any of
18 this while he lost 90 percent of his business
19 because now grain elevators are maintained by
20 anyone. Anyone can maintain them. So, he is
21 trying to push this back into the act.

22 MR. JOHNSON: So now are wind turbines
23 considered a special purpose?

24 MR. CAPUANI: No. They were.

1 MR. JOHNSON: What are they now?

2 MR. GREGORY: Now they are wind turbine,
3 and they are in the elevator code so they are
4 regulated in the State of Illinois.

5 MR. JOHNSON: So they are the same as any
6 commercial or public?

7 MR. GREGORY: Yes.

8 MR. CAPUANI: Yes. The State adopted the
9 2013. They came into the jurisdiction.

10 MR. GREGORY: But I don't think you see
11 many wind towers in your suburb.

12 MS. VAUGHN: We are not going to see them
13 most likely in the northwest corner.

14 MR. CAPUANI: Dave, what is the average age
15 of the wind turbine elevators that you inspect?
16 What is the oldest.

17 MR. SMITH: Really 10 is getting up there.
18 There are probably some out there older than 10.
19 10 is a pretty good mark for an older elevator.

20 MR. JOHNSON: We are here today to decide
21 if --

22 MR. CAPUANI: We are not deciding anything
23 today.

24 MR. GREGORY: We are just learning.

1 MR. JOHNSON: Okay. Thank you.

2 CHAIRMAN BLOCK: Dave, can I just ask you,
3 do you know what the expected lifespan is on
4 those?

5 MR. SMITH: They are generally built to
6 last 20 years, the actual tower and the cell; but
7 I can assure you if they are making money at the
8 end of 20 years, they are going to keep repairing
9 them and keep going unless for some reason they
10 are obsolete.

11 MR. GREGORY: The biggest problems is the
12 gear box.

13 MR. SMITH: Routinely they pull those gear
14 boxes out now. They actually in some sites take
15 the cell and set it on the ground and pull the
16 gear boxes out and replace them when they get
17 cracks and so forth. So I can see that with
18 maintenance these are just going to go on.

19 MR. KOSHAK: Mr. Chairman, a lot of these
20 questions can be answered with this presentation.
21 A picture is worth a thousand words.

22 CHAIRMAN BLOCK: So no more questions.
23 Let's move forward with the presentation.

24 MR. KOSHAK: First I am John Koshak for

1 those who don't know me. I appreciated David
2 being here and Temples and the other manufacturers
3 and Andy. We have a wind farm owner or I guess
4 you're a manager. So, we have plenty of turbine
5 experts besides me, not that I am an expert; but I
6 know a lot about them.

7 Basically in the U.S. and Canada
8 starting in 2009 we started modifying the code and
9 today as we sit here today, the 2016 code will no
10 longer have wind turbine 511 in it. It is now its
11 own standard A-17.8. So this is kind of a unique
12 period in that 2013 is going to be the only
13 additional code that has Section 5.7, or 5.11, I
14 guess. So when you guys adopted the 2016 some of
15 the issues will go away.

16 I talk about the standardization, the
17 benefits of standardization. In many
18 presentations you guys are past this point. You
19 have already adopted it, so thank you.

20 What we have here is the State of
21 Illinois has a general rule that says any
22 conveyance has to be regulated and registered and
23 so when the 2013 adoption came along, I called and
24 asked the question how do you guys want to handle

1 the 2006 installations and the 2009, the pre-2013
2 stuff, because now you've got that body of
3 conveyances.

4 Technically speaking there is special
5 purpose personnel elevators. In the code the
6 special purpose personnel elevators defined the
7 devices only to be used by authority and trained
8 persons, not the general public. That is what
9 makes it a special purpose, a personnel elevator.

10 They didn't quite follow the Section
11 5.7, which is the SPPE section of the code and so
12 in many jurisdictions across the country, I
13 actually had to write a variance to 5.7 for the
14 AHJ for me to put them. For instance, the State
15 of Illinois and the State of Pennsylvania.

16 Because Illinois is unique that they
17 don't regulate SPPE's, they didn't see me six
18 years ago making a presentation about the
19 variances to 5.7 because you didn't regulate it.

20 But generally speaking when there are
21 two considerations, you would get a permit to
22 install it, get a registration to tell the state
23 that it's here and give it a number and then the
24 existing installation requiring identification.

1 Then with that registration on the form, you have
2 to say what code am I inspecting this to and so
3 that was the question I called and said to Bob and
4 the Board what code are you going to make us
5 compliant with.

6 My recommendation is use what the
7 manufacturer is inspecting it to back in 2006
8 through 2014, because that is what they have been
9 being inspected to, and we haven't seen any issues
10 with it, and I don't expect to ever see any issues
11 with it.

12 The alternative is that you say will
13 no, I want all of these units to comply with 2013.
14 That is a retrofit requirement and then that would
15 cause the stakeholders in that industry a lot of
16 time; and I don't think that money is well-spent.
17 That is what I am here to argue, that leaving them
18 alone, we would like them to be registered.

19 We like them to be inspected, and we
20 have inspection training available. Whether or
21 not you have the personnel to do this inspection
22 is another matter. To me it's a money maker if
23 you want to get into the inspection business like
24 Dave.

1 So I got slightly ahead of myself.
2 Earlier we had no codes in Illinois, and what you
3 requested was that these earlier devices be
4 granted permits, but no requirements for
5 upgrading.

6 In the event that you do go that
7 direction, though, we would be more than willing
8 to prepare a variance document to explain what
9 their 27 variances from Section 5.7, and other
10 states have simply looked at it and said yes, you
11 are right.

12 A typical example is one of the
13 requirements in the code is a rail of an elevator
14 can't deflect more than a quarter inch.

15 These devices are actually on
16 half-inch ropes. They are like a guitar string
17 and so just standing in mid levels, you can shake
18 and the car will shake a foot. It will vibrate a
19 foot. So, clearly the corner deviation is
20 something that we would have to request a variance
21 for as an example, and all of the other examples
22 are similar to that.

23 So what are these devices and how
24 many of them are there? Part of my job when I got

1 into the wind turbine side was assisting my client
2 with approvals around the country and around North
3 America. This is current as of May of 2013.

4 It hasn't really changed much except
5 Illinois is going to go green now instead of
6 brown. Green represents jurisdictions that
7 regulate these devices. Red represents
8 jurisdictions that don't. Why don't they? And
9 just to give you a flavor of the North American
10 market, Texas has a rule that excludes all
11 industrial facilities from a 17.1. If it's an oil
12 grant or if it's an oil refinery, if it's a bed
13 manufacturing facility, they don't have to comply
14 with 17.1. You have unique rules here in
15 Illinois. States have different unique rules
16 around the country. So, these devices while they
17 are in the industrial facilities exclusion, it's
18 similar in Kansas and Oklahoma. I don't know the
19 exact exclusion in Nebraska. That is not a very
20 organized state. The code is they don't have any
21 jurisdiction per se.

22 MR. GREGORY: Or code.

23 MR. KOSHAK: Yeah. West Virginia and
24 Virginia, I would say that they are more along the

1 industrial facility exclusions, and that goes
2 again to the industry. The mine industry is very
3 powerful, and they don't want regulation and so
4 they don't get it.

5 Quebec is just weird, and Alberta and
6 Saskatchewan, they are reconsidering their
7 position on this with the 2013.

8 Prior to when this slide was last
9 touched, A-17.8 was the thought of a dream of it's
10 going to be down the road some time. And now that
11 A-17.8 is reality, and businesses in Saskatchewan
12 are probably going to tag along.

13 Canada typically is mostly unified
14 across. So, that gives you an idea of what are
15 these things.

16 So if you have driven around the
17 country, California has a slew of them. Palm
18 Springs is like the 1980s, real small 20, 30, 40
19 meter towers and then as you see this progression
20 and the time line, the size of the generators the
21 wind turbines higher up, there is clearly more
22 land with the air flow.

23 As you increase one meter in diameter
24 of the propeller, it's a function of the square of

1 the something root, whatever root you get, and you
2 get five times more energy for every one foot of
3 more diameter.

4 They want them bigger, and what we
5 are seeing today is two and a half to three and
6 half megawatt generators inside these turbines.

7 So when you see them, they seem like
8 they are just loping along at 22 rpm's, the ones
9 that are being installed today are generating
10 upwards of four megawatts of instantaneous power.
11 There's a tremendous amount of power. If you can
12 see the growth, it's going up to five. There are
13 some off-shore ones in the north sea here that are
14 over seven megawatts. They are just monstrosities
15 100, 200 meters tall.

16 So the ones we are talking about
17 today are between 100 and 125 meters that they are
18 building today.

19 Most of the ones that were installed
20 that Dave is looking at are 80 to 100 meters. 100
21 feet is 30 meters. So 300 feet is 100 meters. So
22 that is the growth. It's another view of what the
23 future is going to be. So in that 2015 to 2002,
24 125 meter five megawatt, this is where we are at

1 and then in the future it's going to go to 10
2 megawatt, and I don't know if they are 20
3 megawatt. But this is from IWEA. IWEA is the
4 American Wind Energy Association. There is
5 typically a state version of it, like the Illinois
6 Wind Energy Association. This is what they are.
7 This is a picture of one that I took in
8 Pennsylvania somewhere.

9 So these next slides are pictures of
10 actual ones. So here is -- this picture is
11 deliberate. This is one where there's one-man
12 units in it. (Indicating.)

13 This is a guy in one from another
14 manufacturer. These are obviously precode. This
15 one is precode. We talked about some of the code.

16 This one has changes that the
17 products for all of those who comply with the code
18 have made. Again, this is an Avanti product here,
19 both of these. This type of devices you will see
20 them, but in our code we disallowed a bucket-type
21 car. It has to have a full length door, and the
22 reason we did that is when we were drafting the
23 early 511 code, the only fatality that I am aware
24 of in the wind industry occurred in Iowa. Iowa

1 for it's small size has the second most number of
2 wind turbines in America in the United States.
3 Texas is No. 1. California is struggling every
4 year. They are trying to beat each other.

5 But some kid was working a wind
6 turbine, a guy was working, he climbed down the
7 bucket.

8 When you work in these devices, you
9 are supposed to have your lanyards hooked up to
10 that anchor point, and these guys don't have that.
11 I never noticed that.

12 So you have a safety harness, and
13 it's got two hooks on it. You are supposed to
14 hook up, and it hooks another one. You unhooked
15 it to places and cross over to transition.

16 This kid apparently unhooked; and, as
17 he climbed out of the bucket, there was a boy in
18 the top lift of the bucket, and his foot slipped
19 and he fell out of the bucket onto the platform.

20 The platforms are 30 meters between
21 them typically. There is a ladder. As you can
22 see on the left there, the ladder meets the
23 elevator. That ladder is going through a hole in
24 the platform, and there is typically a port door

1 that closes so that you don't fall through that
2 hole. This kid had left that port door open, the
3 ladder door. So it was a comedy of errors. He
4 didn't hook up. He stepped on a slippery surface.
5 He rolled and fell down that hole; and when that
6 report, the chief inspector and I Jim Borway
7 reported it, we did a hazard assessment and
8 quickly decided that that is why bucket cars
9 aren't allowed in the code anymore, even though
10 there are some owners who says it's cheaper, I
11 like it, it seems safer, when you get a hazard
12 assessment and you look at the actual experience,
13 it's a really good example of how the code makes
14 it safer. If you don't make the guy climb 43
15 inches to get out of the car, if you can just
16 simply open a full size door, it's safer.

17 CHAIRMAN BLOCK: Is this limited amount of
18 manufacture of these cars?

19 MR. KOSHAK: There is about 20 worldwide.

20 MR. SMITH: There's three in the U.S.
21 still.

22 MR. KOSHAK: There is Skyman, Power
23 Climber, Avanti. There used to be seven. Now
24 there is three. There might be four. So, again,

1 this is another view of when you are in a tower,
2 the ladder typically is placed where you can rest
3 your back on the tower wall, but that is not
4 always the case.

5 But you can see there is an elevator.
6 There is the hole in the elevator platform; and,
7 again, between the platform we are talking 90
8 feet, 30 meters minimum.

9 This is a company called High-Low,
10 and this has a really good illustration. So
11 there's a couple things that you need to be aware
12 of. There is two kinds primarily. There is a
13 rope guided where you have these two half-inch top
14 ropes like this one and then you have a
15 ladder-guided one. So you see this car is
16 actually guided on the ladder.

17 There are a lot of code requirements
18 regarding the safety of the ladder climbing to the
19 car. As you clearly don't want a car driving up
20 on to or down on to a climber obviously. It's
21 actually over the center of the car. So, it's not
22 being driven up the ladder. It is only being
23 guided by the ladder. There is, however, a rack
24 and pinion version of the ladder guide, and that

1 is somewhat cantilever.

2 So Power Climber is another player,
3 and you can see that -- I wanted you to take a
4 look at these two pictures. This one is what the
5 industry brought to the table.

6 Those two little bars were what you
7 would see when the car came down and hit the
8 floor. There is no pit. That is the normal
9 stopping means.

10 It's also an obstruction to a
11 detection device, which when it got to code, we
12 said wait a minute. If you are standing right
13 here, you are not going to be hitting the head
14 bar. If you are standing right here, you are not
15 going to be safe either.

16 So now the obstruction plates are
17 full size over the footprint with guards to
18 prevent fingers or a toe being crushed.

19 So, another code improvement, this is
20 a company Gordon. They actually closed their U.S.
21 doors. They are still a major player in the
22 world. This is their design. Their design has
23 some really neat features in that they have
24 plexiglass on all four sides of the car, so which

1 it begs the question why do you have plexiglass
2 there? Why do you have holes in this car?

3 One of the functions of this lift is
4 not just transportation. It is to examine the
5 inside of the tower, and the towers are painted
6 white on purpose. If there is a fracture, you
7 will see the rust line. So you are actually
8 inspecting the tower, seeing good visibility
9 outside of the car.

10 That glass, if and when you do run
11 into these, that has to be labeled glass. So you
12 will see a bug like you would on the vision panel.
13 So we made some special requirements regarding
14 allowing that glass panel, that vision panel to be
15 larger.

16 These are actual NCTU. This is a
17 typical railing. In this case there is no gate,
18 because this was a bucket car.

19 At their shows they have towers, and
20 they have their latest and greatest designs, and
21 you get in and ride them up 20 feet, if you want
22 to go to that air show.

23 This is going to be your standard
24 railing around a lift in a tower. So this is a

1 gate. The gate has to be self-closing with an
2 11-pound force. It does not have to be switched
3 by the current code, no interlock, no mechanical
4 and electric contact.

5 CHAIRMAN BLOCK: These are constant
6 pressure?

7 MR. KOSHAK: They are all constant pressure
8 turbine with one exception, and that exception
9 would require an electric contact or a trapped key
10 system. You will probably start seeing trapped
11 key systems in the future. Certainly you can put
12 a switch on there if you want, but generally
13 people don't.

14 A trapped key system is a system
15 where there is a key switch in the car, and you
16 have to take a special key and put it in and turn
17 it and that then when you close the door, you can
18 run.

19 The gate has a trapped key mechanism
20 that requires the same key to unlock it so that
21 you can open the gate. You can't take the key out
22 unless the gate is closed. Hence, it's a trapped
23 key. It becomes untrapped when you close the gate
24 and turn the key. Now, the gate locks, and then

1 you take the same key and put it in the machine
2 and turn it. Now, you can run. That key is on a
3 tether, and that tether has to be thick enough
4 that when it comes through the gate, you cannot
5 close the gate. The gate switch won't make up.
6 So that is a trapped key system. That was the
7 tradeoff to running conduit through all of these
8 strictly speaking remote 30 meter floors. So
9 there is no electrical at any landing. All of the
10 electrical components are on the car.

11 So it's just kind of a view of a
12 tower to give you some idea of the relationships
13 of things. The ladder always has to be within one
14 meter of the exit point of the car.

15 So that if the car were to break bad
16 and you can't manually lower yourself, you could
17 open the door. You are hooked up. You can reach
18 the ladder just like a pit ladder is, hook on the
19 ladder, unhook it from the car and then extricate
20 yourself.

21 So, those are pretty much the types
22 of examples of what they are, and the rest we have
23 kind of talked about. It's a unique environment.

24 The temperature extremes, as Dave

1 mentioned, are pretty severe. There is some that
2 go to minus 40.

3 Generally speaking, there are
4 survivability temperatures where the manufacturer
5 makes it to very frigid temperatures, and then
6 there are operational limit temperatures where
7 human beings below this temperature human beings
8 can't even be in it.

9 When you go to a wind farm, the first
10 thing that you are going to see is -- or one of
11 the things that you will be asked to do is to do
12 their safety training and understand the rules of
13 the wind farm. There is going to be a sign
14 similar to this that says when the wind is X miles
15 an hour or actually --

16 MR. SMITH: Meters per second.

17 MR. KOSHAK: Meters per second, I still
18 can't grasp that. The wind is measured in metric
19 meters per second. It's one to seven. The higher
20 the wind, if it's very high wind, you are not even
21 allowed in the tower.

22 If it's between this and this speed,
23 you are allowed in the tower, but not at the top
24 of the tower or in the elevator; and if it's lower

1 than that, then you are allowed in the elevator.

2 Another Rule is if you detect
3 lightning within 50 miles of the tower itself
4 itself, you will get an alarm; and the alarm comes
5 on all of your communication systems, a horn and
6 everybody has to come back to the operations and
7 maintenance building. They are very strict.

8 MR. SHANKLIN: John, maybe you can help me
9 out.

10 As far as the grain elevators, what
11 was the rationale to move it from a special purpose
12 to its own section?

13 MR. KOSHAK: The fifth line. There is
14 going to be 100,000 of these things by 2030.
15 There is no other sector of elevators that have
16 such a huge population that we used daily; and
17 when I first met Matt Avanti and I started
18 grasping what these numbers meant, I went to the
19 standards Committee and I asked the standards
20 committee hey, guys, there is going to be 100,000
21 of these. Do we want them in our scope? And the
22 answer was yes.

23 MR. SHANKLIN: The inspections will also be
24 an issue. Those are the people who inspect

1 elevators and conveyors. They are usually older,
2 retired members, and it just doesn't pay enough to
3 support a family on just being a pure inspector.

4 So now you are looking at somebody
5 that is being physically fit, somewhat capable of
6 lifting their weight, because they have this.
7 It's going to be rough to man that. The manpower
8 of the inspection is going to be difficult. You
9 have 100,000 elevators. There is going to be a
10 pretty significant amount of people that you are
11 going to need to inspect them.

12 MR. GREGORY: Life is easy.

13 MR. GRANT: Are you going to try to repeat
14 on an annual inspection basis? I have 240 of
15 these in my neighborhood.

16 So, how are you going to manage
17 the inspection frequency given the environmental
18 limitations for access in the states that do
19 regulate it? It's seems as if it's out of their
20 hands.

21 MR. SMITH: Out of whose hands, the State?

22 MR. GRANT: The point is that if you have
23 to have that wind turbine, there's 242, let's say,
24 they may have 13 more turbines than that totally

1 across the state and other states to get an annual
2 inspection cycle on an existing installation by
3 somebody that has to come in, verify who they are,
4 go out to the site and talk about the lightning,
5 talk about the wind and operational choices, how
6 do you manage that to ensure that you can get the
7 annual inspection done in a one-year period?

8 MR. SMITH: It would be the same way you
9 manage the maintenance of the cell or the
10 maintenance of the equipment at the bottom of the
11 tower. It's not a problem. They are very
12 organized. The maintenance of the cell is
13 incredible. I wish the commercial elevators were
14 maintained the way that the cells are maintained.

15 MR. VANSLEET: One of the things that they
16 are very good about is they know when there's high
17 low periods.

18 They can predict certain months where
19 we are concerned, so people plan the maintenance
20 and things like that.

21 So with the elevators basically I try
22 to install them. There is periods of low wind,
23 low snow. You try not to be in the snow in the
24 mountains. So, basically you know for the next

1 15, 20 years when you are going to want to be on
2 the site. There is historical data. So you can
3 plan them. You are trying to measure the plane
4 and the light. It's very predictable within a few
5 week period of when you can do work and when you
6 cannot do work.

7 MR. CAPUANI: If you are going to speak
8 from the audience, can you leave your name.

9 MR. VANSLEET: My name is Neil Vansleet.

10 MR. A. SMITH: My name is Adam Smith. This
11 lines up with his question.

12 What are the statistics of the upper
13 Midwest on the average number of days where you
14 could not inspect the elevator, the wind farm?

15 Is it five percent, so it's not a big
16 deal or is it 75 percent and then maybe this is a
17 big deal?

18 MR. KOSHAK: Generally, as I understand it,
19 Andy said it and I will say it in the way I
20 understand it, there is high and low wind periods.

21 So, there is that one month it's high
22 for six months, it's higher wind than the other
23 six months. So I don't know. How does Jim do it
24 in Iowa?

1 MR. GRANT: Jim has 5,000 of these things.

2 MR. VANSLEET: 900.

3 MR. KOSHAK: And he's got the system sorted
4 out. It's an impossible task.

5 MR. SMITH: The inspector also inspects ski
6 lifts, which is only certain times of the year,
7 and they work it in. They actually don't require
8 a third party. They are actually doing it as a
9 state entity, and they have a lot of them.

10 MR. KOSHAK: They have almost 400.

11 MR. VANSLEET: Well, this is very
12 informational what you said. I am still trying to
13 figure out where we fit in this. I want to make
14 sure I understand exactly what the issue is.

15 The industry is asking OSFM to act as
16 a regulator for your elevator maintenance
17 installation and inspections.

18 You are coming to us wanting us to
19 conclude you in our regulatory review?

20 MR. KOSHAK: Illinois in general says that
21 every conveyance must be registered.

22 MR. VANSLEET: My question is in Illinois
23 do you want me to register my 90 units? And the
24 answer was yes. Okay. I will register.

1 The next question is what code? Are
2 you going to require that you and inspect them,
3 too?

4 I recommended manufacturer's
5 maintenance and the manufacturer's inspections,
6 because the option was Illinois can say yes, we
7 want them; but we want to comply with the latest
8 code which would require massive expense to the
9 owners. We are trying to prevent the owners from
10 having to pay that.

11 MR. WELLER: When the elevator is
12 installed, isn't it installed under the code and
13 regulated under the code that it is installed
14 under?

15 MR. KOSHAK: Yes.

16 MR. WELLER: So, why would that be
17 different?

18 MR. KOSHAK: Because there was no code.
19 You were excluded under the special purpose.

20 MR. WELLER: I am trying to figure out what
21 we are being asked to do, if that is what we are
22 being asked to do.

23 MR. TASKIN: That is something we are going
24 to have to look into. We are allowing him to

1 present his information here and sort of present
2 the question, but the answer is going to have to
3 be investigated. We know what his position is.

4 MR. WELLER: Do we need to put that on the
5 agenda then to be reviewed before the next
6 meeting?

7 MR. TASKIN: Yes. It will be for a future
8 meeting.

9 MR. HUNT: I am Matt Hunt.

10 Looking at coastal waters as they
11 have in Scotland, that's one thing because then
12 you are still U.S. bound.

13 But looking at the Great Lakes, it's
14 a leap into the future, but I don't think it's
15 that far off.

16 You have had discussions with the
17 border states of the Great Lakes as far as whose
18 jurisdiction that falls into?

19 So, is it U.S. Government, state
20 government and then who gets the fight in that
21 battle.

22 MR. VANSLEET: I can speak on the first
23 five off shores this year, and it's the U.S. Navy
24 that regulates them. But no one perceives having

1 turbine at the Great Lakes.

2 MR. HUNT: Okay.

3 MR. KOSHAK: It's complicated.

4 In certain states they say that if
5 it's within three miles of the low water line,
6 it's state jurisdiction. Outside of that its
7 Coast Guard or U.S., Federal management, different
8 organizations.

9 I have not been asked to investigate
10 the Great Lakes. So I did have to investigate the
11 Massachusetts where the Kennedys blocked it. But
12 oh, well.

13 MR. SHANKLIN: Who are they?

14 CHAIRMAN BLOCK: Any additional comments?

15 MR. KOSHAK: I will blow through these last
16 few.

17 There is created a checklist for
18 inspectors, and it's available to anybody who
19 wants to e-mail me. This is pretty commonly used
20 in Iowa and Pennsylvania, the variance of it; and
21 here is some just actual photos. (Indicating.)

22 What an inspector is looking at as he
23 walks in, how they are guided different
24 methodologies. This is information on ex-U.S.

1 manufacturers.

2 MR. WELLER: I just want to make sure.

3 So the people who are inspecting
4 these elevators are going to be elevator
5 inspectors, elevator constructors who are going to
6 put them in, and mechanics are going to work on
7 them. That is where we are going with this?

8 MR. KOSHAK: That's where we are going.

9 MR. WELLER: So, the person who is
10 inspecting the turbine could be a completely
11 different person than the person who is inspecting
12 the elevator. That is going to be a different
13 person?

14 MR. KOSHAK: Yes.

15 MR. WELLER: I understand.

16 MR. KOSHAK: Again, I am just blowing
17 through this.

18 These two whisper switches, all of
19 the electrical controls for the elevator people in
20 the room are on the car. There is nothing outside
21 the travel path. There is one power cable that is
22 a travel or a trail cable. That is it.

23 CHAIRMAN BLOCK: These are complete
24 climbers.

1 MR. KOSHAK: Yes. This is another view.
2 Dave was mentioning earlier that there are some
3 issues with flags flying in the polyurethane
4 rollers. So they don't have a governor and safety
5 in the traditional sense of an elevator. They
6 have a device that incorporates both into one
7 little small shoe box size. So, the cable goes
8 in, and there is a little tiny wheel with a
9 governor, and then the governor fits a mouse trap
10 and then two big sliders grab the rope. So, it's
11 the governor and safety all in one shoe box. We
12 call that rope gripping safety; and when you look
13 at 511 in the code, there is a definition now for
14 rope gripping safety. So it's not Type A, B or C
15 for those of you technical ones. It's closer than
16 a Type, B, but it's not quite as continuous.

17 On the other hand, these things
18 only -- the max speed that they are going to go is
19 80 foot a minute, and everyone that you are going
20 to see for the next foreseeable future is they are
21 only going 35 foot a minute. So they are very,
22 very, very slow.

23 CHAIRMAN BLOCK: Is that safety on the rope
24 it's climbing?

1 MR. KOSHAK: No. It's on a separate safety
2 rope. The safety rope has no load on it. It just
3 sits there. The traction climbing rope is the one
4 -- that is the only one. It's climbing on one
5 rope, but potentially it's suspended by two. If
6 one breaks, the safety rope would then be the
7 suspension rope.

8 CHAIRMAN BLOCK: Okay. That is why I was
9 asking.

10 This turbine is just a variant. You
11 see that you go up a tower, this area which is a
12 confined space quite a bit. This would be
13 confined space. There is no elevator crack down
14 there for the most part.

15 MR. KOSHAK: In this case they call it a
16 convert. I would call it an inverter, but they
17 are taking 600 volts D.C. from the missile, 660;
18 and they are putting it into that inverter, and
19 some tower manufacturers put the inverter in the
20 tower.

21 Some of them you will see off to the
22 side on a path. When you have that situation,
23 then the elevator can't go next to it. So you
24 would climb up. You would then have to climb up

1 this to get to the elevator.

2 Now, there is some equipment under
3 the elevator. So I said earlier there is no
4 elevator stuff down here.

5 This next picture shows what that
6 stuff might be. This weight is keeping tension on
7 the safety rope, that shoe box rope safety; and it
8 also prevents the rope from being pulled up if it
9 were to jamb on something. Then the suspension
10 rope has this spring across again just to prevent
11 it from being pulled up and being tangled, because
12 you got those two dead ends.

13 And then you have typically some
14 tensioners, and this is a design that you put
15 together. The tensioner will have some indication
16 of the load or the tautness of the guitar string,
17 if you will.

18 I have seen some designs where it's
19 red, green and where it's just really a bolt
20 adjustment like a turn bevel to pull the thing
21 tight, and there will be an indicator for the
22 inspector to see what that tension is. There is a
23 go/no go.

24 The only thing that is really

1 different is torquing because this thing vibrates
2 24/7, every bolt in this thing is torque, and it's
3 got torque markings; and there will be a date that
4 the torquing is done.

5 In 2009 there will be another color,
6 and somehow you will have to conclude that orange
7 is 2009 and red is 2011, and yellow is whatever.
8 But there will be some kind of indication, and we
9 put those torque requirements to verify the torque
10 bolts for the machines.

11 As an inspector, you are going to go
12 to the top, and you are ultimately going to get
13 the machinery. That is a standard machine beam.
14 Again, these things aren't very heavy. They don't
15 have much load on them. So this is your typical
16 fastening. We allow swedging in our code, which
17 is unique.

18 The swedging at the fastening, there
19 has to be a record of the swedging company, and
20 they are not allowed to field swedge. It has to
21 be done at a factory. Some of the problems that
22 we have seen that we have taken out of the code,
23 one inspector found that the eyelets were
24 touching.

1 The eyelets were touching to the
2 point of vibrating the breaking wires. So this is
3 one thing inspectors ought to be looking for.

4 I can go through some of the numbers.
5 This is three years old. We are 60 gigawatt.
6 Today we are generating 74 gigawatt with wind as
7 of the last report from IWEA. I will make this
8 Power Point available to anybody. I don't know
9 how to put it on U-tube.

10 MS. YOUNG: That was Plan B.

11 [Laughter.]

12 MR. KOSHAK: Anybody can drop me an e-mail,
13 and I will send it to you.

14 Wind construction mostly is in Texas.
15 This is as of the 2015 reports. 16 gigawatt is
16 being generated now in Texas at 5.7, and this is
17 the third quarter. In 2016 California went to
18 6.2. That's where they are physically.

19 So why do we regulate them? The
20 answer I gave earlier was there is going to be
21 100,000 of them, and that number is just pulled
22 out of the air.

23 The Department of Energy came up with
24 a plan called the 2030 plan, where they wanted 20

1 percent of all of electrical power in the United
2 States generated by renewables by wind in
3 particular.

4 When you look at the total demand, 20
5 percent is 320 gigawatt. If we use estimated by
6 2031 1.6 terrawatt, 1.6 or 1600 gigawatt, so we
7 needed to generate 302 gigawatt, and today where
8 it's 74. That is where all those numbers came
9 from. If you are interested, I've got the
10 Canadian stuff, too.

11 So now, with all of that information,
12 I think asking questions can put it in the
13 context.

14 MR. GRANT: I have experienced some of what
15 the elevator mechanics go through to become
16 licensed for the State as inspectors and what they
17 need to know.

18 But are you comfortable in your
19 estimation of a need for specialized endorsements
20 relative to these sorts of conveyances in order to
21 be qualified to inspect or service them?

22 MR. KOSHAK: It's funny you asked that.
23 Maybe it's not funny.

24 I began a process of trying to create

1 an educational module to have that kind of
2 certification. The union eventually came up with
3 one.

4 The union wouldn't print one that was
5 copyrighted to everybody. They wanted only for
6 need, which I guess it's their business. That is
7 what they are for.

8 So yes, there are. At this point the
9 Union does have training dates. It has taken
10 Illinois longer in the Union. So I didn't take
11 it.

12 But I teach wind turbine for
13 mechanics, and CET is not interested in doing it
14 because they don't have the lobbying dollars to
15 come here and try to get it on the CET agenda,
16 which I think that is wrong. I think it's a big
17 world. Not everybody has to be. Yes, both of
18 them are available.

19 It does take special time to point
20 out simple things. I think any elevator mechanic
21 currently holding a card should be able to look at
22 it.

23 MR. SMITH: The other part to get onto a
24 farm you have to meet their qualifications as far

1 as climbing the rescue, first aid. It really does
2 a good job to leasing the second part.

3 The technical stuff, they are not
4 that complicated.

5 MR. GRANT: Number one, that would be an
6 overarching additional physical capabilities and
7 specialized training requirements.

8 Does that vary between farms?

9 MR. SMITH: Not that much, not too much,
10 maybe a little bit. Sometimes they require maybe
11 first aid or maybe Red Cross training as opposed
12 to some other type of training. Sometimes it
13 requires an OSHA 10 as opposed to not requiring an
14 OSHA 10. It's pretty similar.

15 MR. GAHR: You touched on it. Andy, why
16 don't you talk about some of the high angle
17 residue.

18 MR. CHAMBERS: Chambers.

19 MR. HUNT: Give your name and come down in
20 front.

21 CHAIRMAN BLOCK: Come down here so we can
22 give you a dedicated spot.

23 MR. CHAMBERS: Chambers. We have other
24 lawyers here as well. We have Pete Pedrola. As

1 an industry standard, we do require all of our
2 farms to become certified through the lift
3 process.

4 So Andy, who I have worked with in
5 the past, we worked with their teams to actually
6 provide these certifications to our staff.

7 We do not allow anybody on site to go
8 into the turbine without having a certification,
9 and with that it gives an overview; and Andy could
10 give a better overview as to everything that
11 entailed with that, but we do it every two years
12 or three years.

13 MR. VANSLEET: We have a number of states.
14 We have an extensive training program that you
15 have to pass just to get into the turbine itself.
16 So, I have mixed feelings on the concept of
17 regulating them as an elevator. They are not an
18 elevator.

19 The general public is not going to
20 get within 100 meters of one of these lifts. We
21 manage two OSHA requirements. We do that
22 component. So to get on to one of my projects,
23 you have to have an OSHA 10. You have to have
24 electrical safety training. I can tell you that

1 because your inspectors are going to be working
2 with electrical components, I am going to require
3 that they be electrically qualified under 70-E.

4 In addition, my climbers are right
5 here. It's two days of intensive training to get
6 certified to climb one of these towers.

7 Not only do you have to train and
8 climb, you have to train to rescue, and that is
9 physically taking a 200 pound dummy or a 200 pound
10 man and getting them to the ground.

11 In lot of cases we don't have fire
12 and EMS support because they don't have the
13 capability to get up to the top of our towers.
14 So, we have to work on self-rescue.

15 So basically what you are looking at
16 is two days of training or three days of training
17 even if you are already certified to inspect an
18 elevator before you get on my farms.

19 MR. SHANKLIN: What is the conveyance? I
20 mean, you could argue elevator or a lift or
21 whatever, but that is a conveyance.

22 MR. VANSLEET: It is a conveyance.

23 MR. SHANKLIN: An inspector wouldn't really
24 be required to do anything. They would witness a

1 inspection, and they are not going to be working
2 with anyone who has knowledge?

3 MR. VANSLEET: He is going to have to climb
4 a 100 meter tower. I will be honest with you.
5 I've climbed 100-meter towers. You've got a
6 30-minute rest.

7 MR. SHANKLIN: You have rest stations every
8 30 foot. Here it's every 90 foot. Here's it's
9 100 feet.

10 MR. VANSLEET: It's 90 to 100 feet.

11 CHAIRMAN BLOCK: To just keep in focus I
12 think what we are being asked as a Board, the
13 question we are being asked is what would we do
14 with the ones prior to the adoption of the code?

15 MR. KOSHAK: Yes.

16 CHAIRMAN BLOCK: Just to keep that in focus
17 mind.

18 MR. KOSHAK: Correct.

19 MR. GREGORY: The legal has to inform us on
20 that, so we can probably turn this off now.

21 MR. CAPUANI: The gentleman that just
22 spoke, I had a question for him.

23 I don't disagree with you that they
24 are conveyance, but I believe they are special

1 purpose conveyances.

2 MR. VANSLEET: I believe they are licensed
3 mechanics. They have a special purpose
4 conveyance.

5 MR. CAPUANI: I am also a licensed
6 mechanic. I believe I can figure it out.

7 Second of all, are you trained to
8 sway us to say that you don't want licensed
9 mechanics, that you want your own people to work
10 on it?

11 MR. VANSLEET: Not sway, but my purpose
12 here is to find out what we need to do to be legal
13 in the State of Illinois. Whatever you guys
14 decide, we will manage the process.

15 I was asked what do you need to do to
16 be able to service these elevators, these lifts,
17 whatever we decide to call them; and that is what
18 you need to do.

19 If you are not working in a high rise
20 downtown in Chicago. You are working in a very
21 specialized area with additional hazards involved
22 with doing the work. I mean, in a high rise in
23 Chicago, if you need to go up to the elevator room
24 on the top, you ride the elevator up.

1 MR. SHANKLIN: Correct me if I am wrong,
2 what is the work on any conveyance in the State of
3 Illinois you have to be licensed. You have to
4 take that, and you are going to regulate it. They
5 are going to say that you have to be a licensed
6 mechanic to be able to work on it.

7 While now it may need manufacture's
8 training for some things; but overall I would
9 assume that we are going to regulate it.

10 So, if we are going to regulate it,
11 my thought would be it has to be a licensed
12 elevator personnel to be able to work on it.

13 MR. VANSLEET: We use OEM generally when we
14 need repair.

15 MR. SHANKLIN: I am just going by the act.

16 As I said, I was asked what do you
17 need to get into our towers?

18 Generally out on board guys it's two
19 weeks of intensive training before we let them
20 look at a tower.

21 If it's in access of what the code
22 requires, have at it. You can have a month worth
23 of training. You are a private owner.

24 But the minimum is what we are saying

1 the minimum is you are asking to be regulated
2 under the code with mechanics, installers,
3 inspectors all under our purview, which is fine.

4 You can select from the 15 that
5 perhaps only one can climb or go through your
6 training. That one gets very rich. Great for
7 him. Great for you. It doesn't mean anything to
8 us. You just have to follow the basics and make
9 sure that the people who are going through that
10 first level of training meet this level. I am not
11 here to oppose either way. I am here for
12 informational purposes only for ours.

13 MR. CAPUANI: I have one more question.

14 MR. SHANKLIN: Yes, sir.

15 MR. CAPUANI: So, I come to you. I am a
16 licensed mechanic. You have all the
17 certifications. Now, I have to take your course,
18 too; right?

19 I have to take your course for two
20 weeks before I could go to your windmills, the
21 wind turbine?

22 MR. SHANKLIN: You are going to have to be
23 climb certified.

24 MR. CAPUANI: Say I have all of those

1 qualifications. Now I come to you.

2 Do I have to take something from you?

3 Do you have the training that you will provide.

4 MR. SHANKLIN: You will receive training at
5 probably a lot less.

6 It is on just what the hazards are in
7 our locations, our escape plans and all of that
8 kind of stuff.

9 MR. CAPUANI: How long does that training
10 taking?

11 MR. SHANKLIN: A couple hours.

12 CHAIRMAN BLOCK: We are getting off track.
13 That is completely off track. That's a site
14 requirement. There is a requirement for the
15 inspection. The firms are going to have to deal
16 with that. It's going be in their cost and
17 everything else. Anything new we installed is
18 regulated under the current code. We are here to
19 talk about what is prior to the code.

20 MR. SHANKLIN: I was just curious on what
21 the standards are.

22 MR. GREGORY: We are good.

23 CHAIRMAN BLOCK: Do we need a motion to put
24 that one on the agenda?

1 MR. GREGORY: Your legal Department will
2 decide that.

3 MR. HUNT: We are not sure how long it's
4 going to take. We will make a decision and put it
5 on the next agenda. We will make sure we put it
6 on with more than enough advanced notice of
7 whenever the next meeting is.

8 CHAIRMAN BLOCK: We are good. That's a
9 public comment on that area.

10 Additional public comment, the only
11 other thing I have is Patty Young.

12 MS. YOUNG: I have no comments right now,
13 unless something else comes that you want me to
14 address.

15 CHAIRMAN BLOCK: Okay. For the record,
16 there are not more public comments.

17 Now we go to variances.

18 MR. CAPUANI: There are no variances.

19 CHAIRMAN BLOCK: And there are no
20 variances. Okay. Then that is good. I think we
21 are concluded.

22 Is there a motion to adjourn?

23 MR. JOHNSON: So moved.

24 CHAIRMAN BLOCK: Second?

1 MR. SHANKLIN: Second.

2 CHAIRMAN BLOCK: All in favor signify by
3 saying aye.

4 [THE AYES WERE HEARD.]

5 CHAIRMAN BLOCK: The ayes have it. The
6 meeting is adjourned.

7 (WHICH WERE ALL OF THE PROCEEDINGS
8 HAD IN THE ABOVE-ENTITLED MATTER ON
9 THIS DATE.)

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1 STATE OF ILLINOIS)

2)

3 COUNTY OF DU PAGE)

4 I, Patricia Ann Armstrong, a Certified
5 Shorthand Reporter of the State of Illinois, do
6 hereby certify that I reported in shorthand the
7 proceedings had at the Elevator Safety Review
8 Board Meeting, and that the foregoing is a true,
9 complete and correct transcript of the proceedings
10 of said meeting as appears from my stenographic
11 notes so taken and transcribed under my personal
12 direction.

13 IN WITNESS WHEREOF, I do hereunto set my
14 hand at Chicago, Illinois this 11th day of March,
15 2016.

16

17

18

19

Certified Shorthand Reporter

21

22 C.S.R. Certificate No. 84-1766

23

24

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